



Deputy Under Secretary of Defense

Advanced Systems & Concepts

SUCCESS STORY

DAC's Combat Trauma Simulator Use Increases



Combat medics train with Combat Trauma Patient Simulation System at Ft. Sam Houston

The Combat Trauma Patient Simulation System, tested by AS&C's Defense Acquisition Challenge (DAC) program, is being used to train Army medics and Navy corpsman in saving lives.

A computerized mannequin, part of the Combat Trauma Patient Simulation System (pictured right), breathes, bleeds, blinks, urinates, tears, secretes fluid, and produces heartbeats, and lung and bowel sounds. It can simulate varying combat traumas and react to treatments. If correctly treated, the simulator's condition improves. If incorrect, the condition worsens. For example, it can simulate cardiac arrest. If medics apply correct medication, its heart will start beating (Water is injected by syringe with barcode, read by simulator). If not, the simulator dies, the trainee learns—and the simulator gets rebooted.



The simulators are being used increasingly to train Iraq and Afghanistan-bound medics and corpsmen. The Navy has procured 14 patient simulators, with seven each at Marine Corps Bases Camp Pendleton and Lejeune. They help train more than 300 corpsmen monthly, and Navy doctors and nurses, cutting trainee attrition from 23 percent to six percent. In addition, the Army has deployed 90 simulators to 18 sites.

AS&C's DAC program annually evaluates proposed technology improvements like the patient simulator. In addition to enhancing combat medical treatment, this acquisition approach saved \$52,500 in research, development, testing and evaluation costs; \$3,300 in manufacturing costs; \$144,000 in annual operations and support costs; and \$1,150,000 in procurement costs.

For more information on the DAC program, visit <http://www.acq.osd.mil/cto/>.